1. A method comprising:

2 defining a multilevel cache including a core

3 having relatively faster components and a region including

4 relatively slower components; and

5 managing the core from said region.

- 1 2. The method of claim 1 including managing the core 2 from a level 2 cache.
- 3. The method of claim 1 including using a virtual address to index the core to avoid the need for an address translation mechanism.
- 1 4. The method of claim 1 including placing functions 2 relating to tags and valid bits as well as the data itself 3 in the core.
- 5. The method of claim 1 including using a writethrough core cache.
- 1 6. The method of claim 1 including implementing a 2 line replacement policy in said region.
- 7. The method of claim 1 including performing virtual-to-physical translation in said region.

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- 1 8. The method of claim 1 including handling a core 2 cache miss by passing the details of the access to said 3 region.
- 9. The method of claim 8 including enabling said region to use a memory translation mechanism to determine the physical address and attributes of the access.
- 1 10. The method of claim 9 including checking to see 2 if the requested data is in a storage associated with said 3 region.
  - 11. An article comprising a medium storing instructions that enable a processor-based system to:

    define a multilevel cache including a core having relatively faster components and a region including relatively slower components; and manage the core from said region.
- 1 12. The article of claim 11 further storing 2 instructions that enable the processor-based system to 3 manage the core from a level 2 cache.

- 1 13. The article of claim 11 further storing
  2 instructions that enable the processor-based system to use
  3 a virtual address to index the core to avoid the need for
  4 an address translation mechanism.
- 1 14. The article of claim 11 further storing
  2 instructions that enable the processor-based system to
  3 access functions relating to tags and valid bits as well as
  4 the data itself in the core.
- 1 15. The article of claim 11 further storing 2 instructions that enable the processor-based system to use 3 a write-through core cache.
- 1 16. The article of claim 11 further storing 2 instructions that enable the processor-based system to 3 implement a line replacement policy in said region.
- 1 17. The article of claim 11 further storing 2 instructions that enable the processor-based system to 3 perform virtual-to-physical translation in said region.
- 1 18. The article of claim 11 further storing
  2 instructions that enable the processor-based system to
  3 handle a core cache miss by passing the details of the
  4 access to said region.

- 1 19. The article of claim 18 further storing
  2 instructions that enable the processor-based system to
  3 enable said region to use a memory translation mechanism to
  4 determine the physical address and attributes of the
  5 access.
- 1 20. The article of claim 19 further storing 2 instructions that enable the processor-based system to 3 check to see if the requested data is in a storage 4 associated with said region.
- 1 21. A system comprising:
- 2 a processor;
- a multilevel cache including a core having relatively faster components and a region including relatively slower components; and
- a storage coupled to said processor storing
  instructions that enable the processor to manage the core
  from said region.
- 1 22. The system of claim 21 wherein said storage 2 stores instructions that enable the processor to manage the 3 core from a level 2 cache.

- 1 23. The system of claim 21 wherein said storage 2 stores instructions that enable the processor to use a 3 virtual address to index the core to avoid the need for an 4 address translation mechanism.
- 1 24. The system of claim 21 wherein said storage 2 stores instructions that enable the processor to place 3 functions relating to tags and valid bits as well as the 4 data itself in the core.
- 1 25. The system of claim 21 wherein said core cache is 2 a write-through cache.
- 26. The system of claim 21 wherein said storage stores instructions that enable the processor to implement a line replacement policy in said region.
- 27. The system of claim 21 wherein said storage stores instructions that enable the processor to perform virtual-to-physical translation in said region.
- 1 28. The system of claim 21 wherein said storage 2 stores instructions that enable the processor to handle a 3 core cache miss by passing the details of the access to 4 said region.

- 1 29. The system of claim 28 wherein said storage 2 stores instructions that enable the processor to enable 3 said region to use a memory translation mechanism to 4 determine the physical address and attributes of the 5 access.
- 1 30. The system of claim 29 wherein said storage 2 stores instructions that enable the processor to check to 3 see if the requested data is in a storage associated with 4 said region.